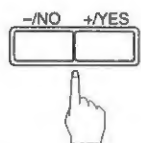**5** Use the [–/NO] and [+/YES] buttons to select ESBL Out.

```
▶MIDI Out=ESBL Out
                    (500ms)
```

→ See "Summary of the MIDI Out Parameter in a MIDI Setup" on pages 79 and 80 for details on the MIDI Out parameter.

6 Press the [FUNC.] button or the [STOP] button to exit the MIDI Setup mode.

Playing Back Import Files

Songs recorded onto floppy disks using MIDI equipment other than the DSR1 can be played back with the DSR1. They are called "import files". In this case, however, you must specify the tracks to be played by your piano, as piano parts in import files may be stored on any track.

1 Insert the song disk into the disk drive.

2 Press the [FUNC.] button.

The FUNC. indicator lights and the Function menu display appears.

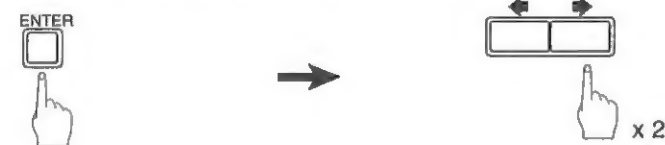**3** Use the [➡] cursor button to position the ▶ cursor next to the MIDI Setup option, then press the [ENTER] button.

The following display appears.

```
▶Piano Part *MIDI Out
*Remote
```

4 With the cursor next to the Piano Part option, press the [ENTER] button. Then, press the [➡] cursor button twice.
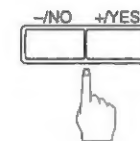
The following display appears.

All pianos types except w/MIDI OUT only

```
←Import File L▶01   R=##
 PianoPart ESBL Out=OFF
```

w/MIDI OUT only type pianos

```
←Import File L▶01   R=##
```

5 Use the [–/NO] and [+/YES] buttons to set the piano part channels.

Option	Description
##	The import file is played by just the tone generator.
01 to 16	The import file is played by the piano on the specified MIDI channel.
Prg	The import file is played by the piano on the channel with the smallest number which contains a piano group voice.
Prg(all)	All channels that contain a piano group voice in the import file is played by the piano.

6 Press the [PLAY] button to play back the song disk.

Remote Control
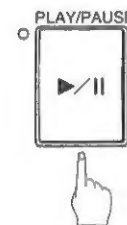
Summary of the MIDI Out Parameter in a MIDI Setup

The following tables show the differences among the MIDI OUT settings (PIANO IN, ESBL Out, Thru Port2) with the **HOST SELECT switch set to MIDI**.

MIDI OUT = PIANO IN

Action	TO HOST connector	MIDI OUT connector	Piano/Internal XG tone generator
Play on keyboard	✕	MIDI data sent if Out Ch ≠ OFF.	No internal tone generator sounds unless Voice button is ON.
Playback of ensemble song file	✕	No data sent. (See note.)	Piano and internal tone generator play normally.
MIDI data received from TO HOST connector	✕	✕	✕
MIDI data received from MIDI IN connector	✕	No MIDI data passed through. (See note.)	Piano and internal tone generator play normally.

✕ = TO HOST connector inactive

Note: For Disklavier pianos, pedal data is sent or passed through. When pedals are played (activated) by data, the depth of the pedals is read by the sensors and sent (PIANO IN) via channels selected in the Out Ch setting (unlike the keyboard, the pedals cannot distinguish whether they are being activated by foot or by data).

MIDI OUT = ESBL Out

Action	TO HOST connector	MIDI OUT connector	Piano/Internal XG tone generator
Play on keyboard	✕	No MIDI data sent unless Voice button is ON.	No internal tone generator sounds unless Voice button is ON.
Playback of ensemble song file	✕	All MIDI data sent except for piano parts (pedals always sent on piano channel); piano parts sent if PianoPart ESBL OUT = ON for all models except w/MIDI OUT only type pianos; if E-SEQ song, incremental pedals not sent on channel 3.	Piano and internal tone generator play normally.
MIDI data received from TO HOST connector	✕	✕	✕
MIDI data received from MIDI IN connector	✕	All MIDI data passed through except piano parts; piano parts sent if PianoPart ESBL OUT = ON.	Piano and internal tone generator play normally.

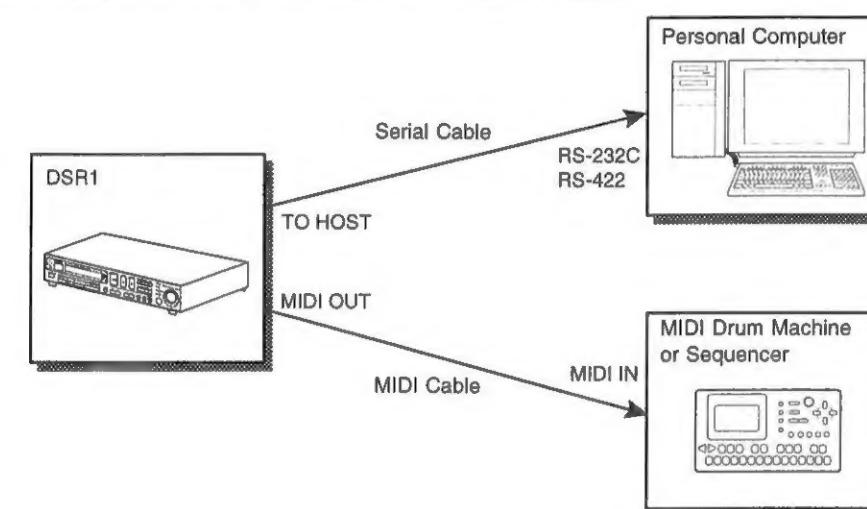✕ = TO HOST connector inactive

MIDI OUT = Thru Port2

Action	TO HOST connector	MIDI OUT connector	Piano/Internal XG tone generator
Play on keyboard	✕	No MIDI data sent.	No internal tone generator sounds unless Voice button is ON.
Playback of ensemble song file	✕	No MIDI data sent.	Piano and internal tone generator play normally.
MIDI data received from TO HOST connector	✕	✕	✕
MIDI data received from MIDI IN connector	✕	No MIDI data passed through.	Piano and internal tone generator play normally.

✕ = TO HOST connector inactive

Chapter 9
The DSR1 & Computers

Creating music with computers used to be a job for professionals only. However, in this age of multimedia, and with many people owning personal computers, almost anyone can enjoy creating music using computers.

General MIDI and Standard MIDI File (SMF) formats supported by the DSR1 are formats common to most computers and MIDI instruments, so you can, for example, use your computer to download SMF data from the Internet and play it on your piano.

The DSR1 can be connected to a computer using the TO HOST connector. It can also be connected via MIDI IN/OUT connectors, but in this case a separate MIDI interface is required. The TO HOST connector allows you to connect the DSR1 to a computer without the MIDI interface.

Note: For the computer setups described in this chapter, it is recommended that you connect your computer to the TO HOST connector and set the HOST SELECT switch to PC1, PC2, or MAC depending on your computer type, so that the DSR1 functions properly. See "Setting the HOST SELECT Switch" on page 82.
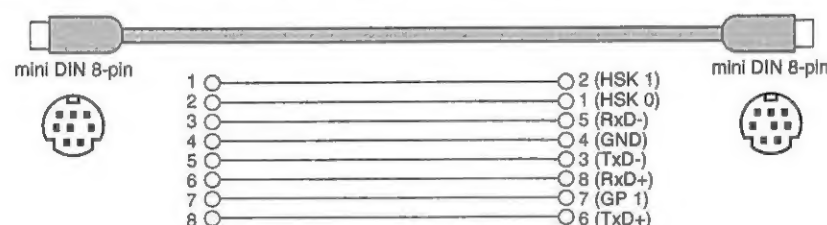
Connecting to a Computer

Specifically, Apple Macintosh, IBM PC/AT, and NEC PC-9801/9821 series computers can be directly connected to the DSR1. Connect the RS-232C or RS-422 connector on your computer to the TO HOST connector on the DSR1 using the specified cables shown below (available separately). Also refer to your computer's operating manual, and make the connection properly.

Your computer may also require a serial port driver for this function. This software is used for controlling the MIDI interface. For further information, please consult your Yamaha dealer.

Note: Be sure to turn the computer and DSR1 power switches off before making the connections and setting the HOST SELECT switch.
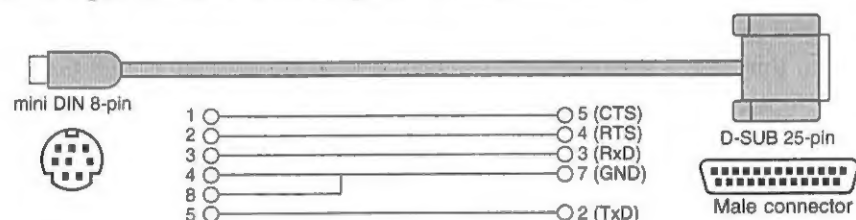
Connecting to an Apple Macintosh Series Computer
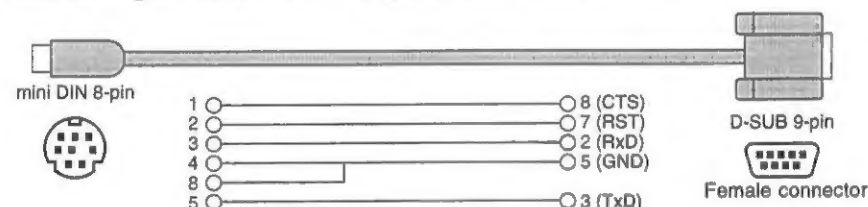
Use a standard Macintosh 8-pin system peripheral cable.

mini DIN 8-pin   mini DIN 8-pin

```
1 ──────── 2 (HSK 1)
2 ──────── 1 (HSK 0)
3 ──────── 5 (RxD-)
4 ──────── 4 (GND)
5 ──────── 3 (TxD-)
6 ──────── 8 (RxD+)
7 ──────── 7 (GP 1)
8 ──────── 6 (TxD+)
```

Connecting to an NEC PC-9801/9821 Series Computer

Use a standard 8-pin MINI DIN → 25-pin D-SUB cross cable.

mini DIN 8-pin

```
1 ──────── 5 (CTS)
2 ──────── 4 (RTS)
3 ──────── 3 (RxD)      D-SUB 25-pin
4 ──────── 7 (GND)
8 ──┐
5 ──────── 2 (TxD)      Male connector
```

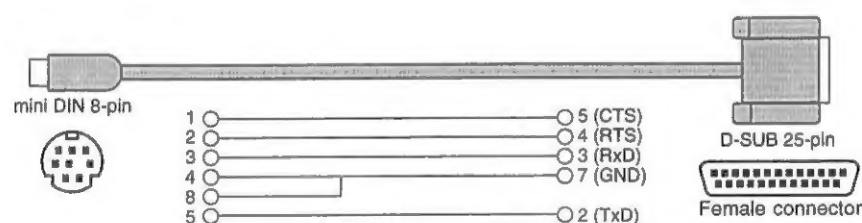## Connecting to an IBM PC/AT Series Computer

(a) Use a standard 8-pin MINI DIN → 9-pin D-SUB cross cable.

mini DIN 8-pin

```
1 ──────── 8 (CTS)
2 ──────── 7 (RST)
3 ──────── 2 (RxD)      D-SUB 9-pin
4 ──────── 5 (GND)
8 ──┐
5 ──────── 3 (TxD)      Female connector
```

(b) Use a standard 8-pin MINI DIN → 25-pin D-SUB cross cable.

mini DIN 8-pin

```
1 ──────── 5 (CTS)
2 ──────── 4 (RTS)
3 ──────── 3 (RxD)      D-SUB 25-pin
4 ──────── 7 (GND)
8 ──┐
5 ──────── 2 (TxD)      Female connector
```

Setting the HOST SELECT Switch

Set the HOST SELECT switch on the rear panel of the DSR1 according to your computer type.

HOST SELECT

MIDI ⌐⌐ MAC
PC1   PC2

HOST SELECT	Computer type	Baud rate	Remarks
MAC	Apple Macintosh series	31,250	On the computer side, set the clock speed to 1 MHz.
PC1	NEC PC-9801/9821 series	31,250	Some software require the HOST SELECT switch to be set to PC2 (38,400 bps) in order to function properly.
PC2	IBM PC/AT series	38,400	
MIDI	General MIDI equipment	31,250	MIDI data is sent/received via MIDI OUT/IN connectors, and not the TO HOST connector.

* Apple and Macintosh are trademarks of Apple Computer, Inc.
* IBM PC/AT is a trademark of International Business Machines Corporation.
* PC-9801/9821 is a trademark of NEC Corporation.

Playing Back Songs in a Computer

Songs created and stored in your computer system can be played back by the DSR1.
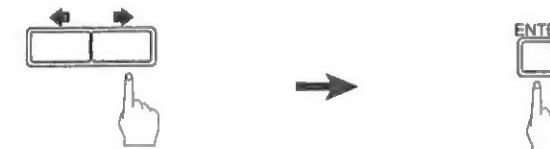
1   **Press the [FUNC.] button.**

The FUNC. indicator lights and the Function menu display appears.

2   **Use the [→] cursor button to position the ▶ cursor next to the MIDI Setup option, then press the [ENTER] button.**

The following display appears.

```
▶Piano Part *MIDI Out
*Remote
```

3   **With the ▶ cursor next to the Piano Part option, press the [ENTER] button.**
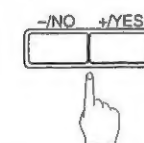

The following display appears.

```
▶Piano Rcv Ch=01          →
```

4   **With the ▶ cursor next to the Piano Rcv Ch parameter, use the [–/NO] and [+/YES] buttons to select the channel for the piano part.**

English

The selected channel will be played by your piano, and the other channels by the internal XG tone generator. See "Receiving Data from a MIDI Sequencer" on page 75 for details on MIDI channels.

5 Press the [FUNC.] button or the [STOP] button to return to the normal display.

Recording Songs to a Computer (Sequencer)

You can record keyboard and pedal data onto a computer.
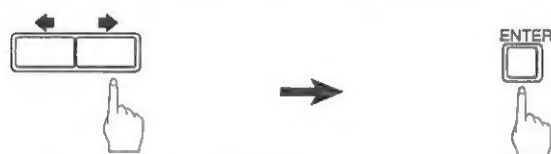
1 Press the [FUNC.] button.

2 Press the [➡] cursor button to position the ▶ cursor next to the MIDI Setup option, then press the [ENTER] button.

The following display appears.

```
▶Piano Part *MIDI Out
*Remote
```

3 Press the [➡] cursor button to position the ▶ cursor next to the MIDI Out option, then press the [ENTER] button.
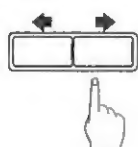
The following display appears.

```
▶MIDI Out=PIANO IN
  TO HOST =PIANO IN    ➜
```

→ See "Summary of the MIDI Out Parameter in a Computer Setup" on pages 86 and 87 for details on the MIDI Out parameter.

4 With the cursor next to the MIDI Out parameter, press the [➡] cursor button.

```
←Out Ch▶01           ➜
  Prg=###    Vol=###
```

The "Out Ch" option is used to select the MIDI channel on which the DSR1 will transmit MIDI data. It can be set to OFF, MIDI channels 1 to 16, or HP.

Channel	Description
OFF	No data is sent to the MIDI instrument.
1 to 16	Keyboard data and pedal data are sent on the selected channel.
HP	For pianos with half pedal function, keyboard data and on/off pedal data are sent on channel 1, and continuous pedal data (half pedal) is sent on channel 3. For pianos without half pedal function (such as MX80, MX100A, MX100B), keyboard data and on/off pedal data are sent on channel 1, and on/off pedal data also on channel 3.

If you want to play the piano parts on the internal XG tone generator, set Piano Rcv Ch to ##.

To monitor all recording parts on the internal XG tone generator, set the "Echo Back" or "Patch Thru" options on the computer or sequencer to ON. See their operating manuals for details.

5 Press the [FUNC.] button or the [STOP] button to return to the normal display.

Playing Back More than 16 Channels

You can play back from a computer, song data that contains up to 32 channels by connecting the DSR1's TO HOST connector to the serial port on a computer and its MIDI OUT connector to a MIDI instrument. Using software corresponding to port signals, the 32 channels are sent to the DSR1. The DSR1 plays channels 1 to 16 (port 1) and channels 17 to 32 (port 2) are output to an external MIDI instrument.

1 Press the [FUNC.] button.

2 Press the [➡] cursor button to position the ▶ cursor next to the MIDI Setup option, then press the [ENTER] button.

The following display appears.

```
▶Piano Part *MIDI Out
*Remote
```

3 Press the [→] cursor button to position the ▶ cursor next to the MIDI Out option, then press the [ENTER] button.
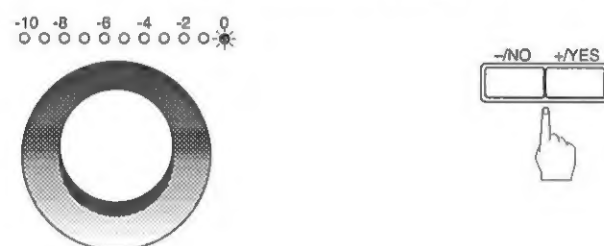
The following display appears.

```
▶MIDI Out=PIANO IN
 TO HOST =PIANO IN        ⇥
```

→ See "Summary of the MIDI Out Parameter in a Computer Setup" on pages 86 and 87 for details on the MIDI Out parameter.

4 With the ▶ cursor next to the MIDI Out parameter, use the Dial or the [–/NO] and [+/YES] buttons to select "Thru Port2".

5 Press the [FUNC.] button or the [STOP] button to return to the normal display.

Summary of the MIDI Out Parameter in a Computer Setup

The following tables show the differences among the MIDI OUT settings (PIANO IN, ESBL Out, Thru Port2) with the **HOST SELECT switch set to PC1, PC2 or MAC.**

MIDI OUT = PIANO IN

Action	TO HOST connector	MIDI OUT connector	Piano/Internal XG tone generator
Play on keyboard	MIDI data sent if Out Ch ≠ OFF.	MIDI data sent if Out Ch ≠ OFF.	No internal tone generator sounds unless Voice button is ON.
Playback of ensemble song file	No MIDI data sent.	No MIDI data sent. (See note.)	Piano and internal tone generator play normally.
MIDI data received from TO HOST connector	No MIDI data passed through. (See note.)	No MIDI data passed through. (See note.)	Piano and internal tone generator play normally.
MIDI data received from MIDI IN connector	All MIDI data passed through without delay.	No MIDI data passed through.	Piano and internal tone generator do not respond.

Note: For Disklavier pianos, pedal data is sent or passed through. When pedals are played (activated) by data, the depth of the pedals is read by the sensors and sent (PIANO IN) via channels selected in the Out Ch setting (unlike the keyboard, the pedals cannot distinguish whether they are being activated by foot or by data).

MIDI OUT = ESBL Out

Action	TO HOST connector	MIDI OUT connector	Piano/Internal XG tone generator
Play on keyboard	MIDI data sent if Out Ch ≠ OFF.	No MIDI data sent unless Voice button in ON.	No internal tone generator sounds unless Voice button is ON.
Playback of ensemble song file	No MIDI data sent. (See note.)	All MIDI data sent except for piano parts (pedal always sent on piano channel); piano parts sent if PianoPart ESBL OUT = ON for all models except w/MIDI OUT only type pianos; if E-SEQ song, incremental pedals not sent on channel 3.	Piano and internal tone generator play normally.
MIDI data received from TO HOST connector	No MIDI data passed through. (See note.)	All MIDI data passed through	Piano and internal tone generator play normally.
MIDI data received from MIDI IN connector	All MIDI data passed through without delay.	No MIDI data passed through.	Piano and internal tone generator do not respond.

Note: For Disklavier pianos, pedal data is sent or passed through. When pedals are played (activated) by data, the depth of the pedals is read by the sensors and sent (PIANO IN) via channels selected in the Out Ch setting (unlike the keyboard, the pedals cannot distinguish whether they are being activated by foot or by data).

MIDI OUT = Thru Port2

Action	TO HOST connector	MIDI OUT connector	Piano/Internal XG tone generator
Play on keyboard	MIDI data sent if Out Ch ≠ OFF.	No MIDI data sent.	No internal tone generator sounds unless Voice button is ON.
Playback of ensemble song file	No MIDI data sent. (See note.)	No MIDI data sent.	Piano and internal tone generator play normally.
MIDI data received from TO HOST connector	No MIDI data passed through. (See note.)	All MIDI data on channels 17-32 sent.	Piano and internal tone generator play channels 1-16 normally.
MIDI data received from MIDI IN connector	All MIDI data passed through.	No MIDI data passed through.	Piano and internal tone generator do not respond.

Note: For Disklavier pianos, pedal data is sent or passed through. When pedals are played (activated) by data, the depth of the pedals is read by the sensors and sent (PIANO IN) via channels selected in the Out Ch setting (unlike the keyboard, the pedals cannot distinguish whether they are being activated by foot or by data).

English

Chapter 10
Resetting the DSR1

If you want to return the DSR1 to its initial settings, follow the Reset function below.

Resetting the DSR1
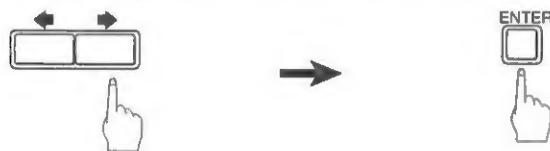
You can reset all settings, the Memory Disk, or both.

Note: The PianoType setting will not be reset by this function.

1 **Press the [FUNC.] button.**

The FUNC. indicator lights and the Function menu display appears.
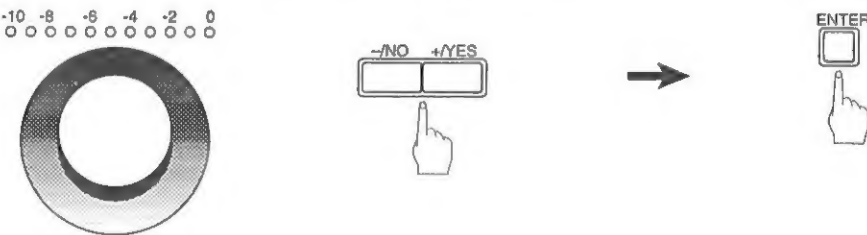
2 **Use the [→] cursor button to position the ▶ cursor next to the Reset option, then press the [ENTER] button.**

The following display appears.

```
==Reset==        (-,+,ENT)
  >Setup
```

3 **Use the Dial or the [–/NO] and [+/YES] buttons to select the item that you want to reset. Then press the [ENTER] button.**

Option	Description
Setup	All settings (See next page.)
Memory Disk + Setup	Memory disk and all settings (SMF format; sample song included) (See next page.)
Memory Disk	Memory disk only (SMF format; sample song included)

The following display appears.

```
==Reset==              SURE?
MemoryDisk+Setup(YES,NO)
```

4 **Press the [+/YES] button to reset the settings.**

If you do not want to reset the settings, press the [–/NO] button.
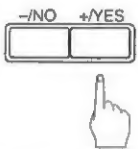
The following table lists the default settings for the items that can be reset.

Parameter	Default Setting	Options
General		
Volume	-5	-10 – 0
Tempo	0	-50 – +20
Transpose	0	-24 – +24
Repeat	OFF	ALL, RPT, RND, A-B
Pedal Cancel	PD on	PDoff, PD on
Voice		
Basic Voice	001	001 – 128
Variation Voice	0	0 – 101 (depending on basic voice)
Vol	100	000 – 127
Metronome		
Click	ON	OFF, ON
Tempo	117	30 – 400
Beat	4/4	1/4 – 9/4
Vol	64	10 – 127
Pedal Count	OFF	OFF, ON
Auto Setup		
Auto Start	OFF	OFF, ON
Space Play	OFF	OFF, 1 – 300, STOP
M-Tune		
TG Master Tune	00	-50 – 00 – +50
BALANCE		
TG Master Balance	64	10 – 127
MIDI Setup		
Piano Rcv Ch	01	##, 01 – 16, 1+2, Prg, Prg(all)
Import File L	01	##, 01 – 16, Prg, Prg(all)
Import File R	##	##, 01 – 16, Prg
Piano Part ESBL Out	OFF	OFF, ON
MIDI Out	PIANO IN	ESBL Out, PIANO IN, Thru Port2
Out Ch	01	01 – 16
Split	OFF	OFF, A-1 – C-7
Trans L	00	-60 – 00 – +60
Trans R	00	-60 – 00 – +60
Remote Out	OFF	OFF, ON
Remote In	OFF	OFF, ON

Chapter 11
Troubleshooting

If you are having difficulty operating the DSR1, see if any of the symptoms listed below apply to your problem, then follow the recommended remedy.

Symptom	Remedy	Reference
Power		
The DSR1 cannot be powered on.	Make sure the AC adaptor is connected to a suitable AC outlet.	See "Connecting the AC Adaptor" on page 14 of the *Getting Started & Playback Manual.*
Main Unit		
The DSR1 does not appear to work correctly.	Turn the power off, wait 5 seconds, then turn it back on.	
	Make sure you have set the Piano Type parameter correctly.	See "Setting Piano Type" on pages 15 and 16 of the *Getting Started & Playback Manual.*
	If the problem remains, consult your Yamaha piano dealer.	
Remote Control		
You cannot operate the DSR1 using the remote control.	Make sure that you are pointing the remote control at the remote control sensor on the front panel.	See "Using the Remote Control" on page 23 of the *Getting Started & Playback Manual.*
	Make sure that you are within the remote control's specified operating range.	
	Make sure that the remote control's batteries have been installed correctly.	See "Installing Batteries in the Remote Control" on page 23 of the *Getting Started & Playback Manual.*
	Check the condition of the remote control's batteries.	See "Battery Replacement" on page 23 of the *Getting Started & Playback Manual.*
<With a Disklavier piano> The remote control operates both the DSR1 and the control panel on the Disklavier.	Place the remote control sensor shielding sticker (included) over the remote control sensor on the Disklavier control panel.	See "Using the Remote Control" on page 23 of the *Getting Started & Playback Manual.*
Playback		
No sound is heard.	Make sure your piano is connected to the DSR1 properly.	See Chapter 3 "Connecting the DSR1" in the *Getting Started & Playback Manual.*
	Use the OUTPUT volume adjuster on the rear panel, the Dial on the front panel and the TG Master Balance function to raise the volume.	See "Setting Volume Levels" on page 19, "Adjusting the Volume" on page 34 and "Balancing the Ensemble Volume (TG Master Balance)" on page 35, in the *Getting Started & Playback Manual.*

Piano parts are not heard.	Make sure Piano Type is set correctly.	See "Setting Piano Type" on page 15 in the *Getting Started & Playback Manual.*
	Make sure your piano is connected to the DSR1 properly.	See Chapter 3 "Connecting the DSR1" in the *Getting Started & Playback Manual.*
	Adjust the volume level using the volume control on your piano.	
Songs are played back at the wrong tempo or in the wrong key.	Reset the tempo or transposition functions.	
	Once the tempo or transposition functions have been set, they will affect playback of all songs until another disk is inserted, or they are reset.	
Songs are not played back in the normal song order.	Check that the "RND" and "RPT" repeat functions are off.	See "All Song, Single Song, Random Repeat" on page 39 of the *Getting Started & Playback Manual.*
You selected a song using the remote control's number pad, but the last song on the disk is found.	If a song number higher than the last song number on the disk is specified, the last song will be found.	
A search time is specified using the remote control, but the end of the song is found.	If a time value higher than the total length of the song is specified, the end of the song will be found.	
<With a Disklavier piano> During playback, complex note trills and faint pianissimo passages are occasionally missed.	Increase the volume level.	
	Your piano lowers the playback volume by reducing the force applied to each hammer. So for notes that are already quiet (pianissimo, etc.), when the playback volume is reduced there may not be enough force applied to a hammer for it to strike the strings.	
The metronome does not sound during song playback.	Check that the song uses a measures and beats time format. If not, the metronome will not sound.	
<With a Disklavier piano> When the Voice feature is used during song playback, pedal effects are engaged.	The pedal effects contained in the song are still valid even when the Voice mode is used.	
Sound coming through the headphone is too soft.	Make sure that the OUTPUT level select switch is set to PHONES.	
	Use the TG Master Balance feature to increase the output volume of the DSR1 internal XG tone generator.	See "Balancing the Ensemble Volume (TG Master Balance)" on page 35 of the *Getting Started & Playback Manual.*
<With the MX100B> The timing of Ensemble parts is off when volume is set at the "soft" position.	Set the volume to minimum or a level other than a "soft" position.	
	In the "soft" position, the key hammers are close to the strings, so piano parts are played back earlier than Ensemble parts.	

English

Symptom	Solution	Reference
<With the MX100A or MX100B> Piano parts are not played back by the piano.	Normally, when no action is sent to the piano for more than five minutes, the power supply to the drive unit shuts off. In this case, pressing the [STOP] button enables playback. With the DSR1 connected properly and switched on, however, the piano's drive unit is always on, as the DSR1 constantly sends MIDI data (Active Sense Data) to the piano. If the DSR1 is off, is not connected to your piano, or if it was connected to your piano more than five minutes after you powered on your piano, you must press the [STOP] button to enable operations.	
When a DOC song is played back on the DSR1, it is played back at an extremely loud volume.	Use the OUTPUT volume adjuster on the rear panel to lower the volume. The Dial on the front panel cannot lower the volume past a certain level.	See "Setting Volume Levels" on page 19 in the *Getting Started & Playback Manual*.

Tone Generator (Ensemble Playback)

Symptom	Solution	Reference
During Ensemble song playback, the Ensemble parts cannot be heard.	Make sure that the audio cables between the DSR1's audio OUTPUTS and the speaker/headphone inputs are connected properly.	See "Connecting the DSR1" on page 12 of the *Getting Started & Playback Manual*.
	Make sure that the amp's volume control is set to an appropriate level.	
	Readjust the volume balance.	See "Balancing the Ensemble Volume" on page 35 of the *Getting Started & Playback Manual*.
When using the Voice feature, no Ensemble voice is heard.	Make sure that your piano is connected to the DSR1 properly.	See Chapter 3 "Connecting the DSR1" in the *Getting Started & Playback Manual*
	Make sure that your piano is set to KBD OUT.	See your piano's operating manual.
	Adjust the volume level in the Voice display.	See "Playing the Keyboard with an Ensemble Voice" on page 52 in the *Getting Started & Playback Manual*.
	Use the OUTPUT volume adjuster on the rear panel to raise the volume.	See "Setting Volume Levels" on page 19 in the *Getting Started & Playback Manual*.
You cannot adjust the volume levels of Ensemble voices and metronome with the volume Dial on the front panel.	The volume Dial is irrelevant in this case. Volume levels of Ensemble voices and metronome must be adjusted in the display in their respective menus.	See "Using the Metronome" on page 49 and "Playing the Keyboard with an Ensemble Voice" on page 52, in the *Getting Started & Playback Manual*.
The pitch of your piano and internal XG tone generator do not match.	Use the TG Master Tune function to tune the internal XG tone generator.	See "Tuning the Tone Generator" on page 54 of the *Getting Started & Playback Manual*.

Recording

Symptom	Solution	Reference
Songs cannot be recorded.	Make sure that your piano is connected to the DSR1 properly.	See Chapter 3 "Connecting the DSR1" in the *Getting Started & Playback Manual*.
	Make sure that your piano is set to KBD OUT.	See your piano's owner's manual.
You cannot record songs onto the internal Memory Disk.	Check that a floppy disk is **not** inserted in the disk drive when recording. If a floppy disk is inserted in the disk drive when recording, the DSR1 automatically records onto the floppy disk and not the internal Memory Disk.	
When recording a new part to an existing track, the new part replaces the existing parts.	Set the Record Tr option to OVERDUB.	See "Overdubbing a Track" on page 32 of the *Advanced Operation Manual*.
When recording the second part of an L/R song or an Ensemble part, the part is not recorded at the correct timing.	Make sure that Piano Type is set properly for your piano.	See "Setting Piano Type" on pages 15 and 16 of the *Getting Started & Playback Manual*.
You cannot re-record.	Re-recording is not possible on protected disks such as PianoSoft and PianoSoft-Plus disks.	

Connection with External Devices

Symptom	Solution	Reference
The DSR1 cannot send and receive MIDI data with other MIDI instruments.	Make sure the MIDI cables are connected properly.	
When sending keyboard data to a MIDI instrument or recording songs to a computer, continuous pedal data is not sent on MIDI channel 3 even when PIANO IN channel is set to HP.	If you piano controls only on/off pedal data, continuous pedal data will not be sent.	See your piano's owner's manual.
A MIDI loop was accidentally created when you connected a computer to the "MIDI OUT connector on the DSR1, so that song data is sent back and forth between the computer and DSR1.	Set MIDI Out to PIANO IN.	See Chapter 9, "The DSR1 & Computers" in the *Advanced Operation Manual*.

Disk Utilities

Symptom	Solution	Reference
You cannot copy a song in the Memory Disk onto a floppy disk.	Copy-protected songs in the Memory Disk cannot be copied onto a floppy disk. They can only be copied onto the Memory Disk.	
	Make sure that the floppy disk's erasure tab is set to "unprotected".	See "Accidental Erasure Protection" on page 2 of the *Advanced Operation Manual*.
You cannot title songs using the keyboard.	Make sure that your piano is set to KBD OUT.	See you piano's owner's manual.

Chapter 12
Display Error Messages

While operating the DSR1 an error message may appear in the display. If an error message does appear, look in the table below for an explanation of the message.

Note: This table does not explain every error message.

CANNOT RE-RECORD PROTECTED FILE	PianoSoft songs cannot be re-recorded, as they are write-protected.
CANNOT EXECUTE. PROTECTED FILES EXIST	The current function cannot be executed because protected files exist on the floppy disk.
DISK FULL! INSERT ANOTHER DISK	No more song data can be recorded onto the floppy disk because the disk is full. Use another floppy disk.
DISK WRITE PROTECTED!	The current function cannot be performed because the floppy disk's erasure protection tab is set to "protected". Set the disk's erasure protection tab to "unprotected". See "Accidental Erasure Protection" on page 2 in the *Advanced Operation Manual*.
NOT ENOUGH DISK SPACE	No more song data can be recorded onto the disk because the disk is nearly full.
CANNOT RECORD MORE THAN 60 SONGS	No more than 60 songs can be recorded onto an E-SEQ type disk.
CANNOT RECORD MORE THAN 99 SONGS	No more than 99 songs can be recorded onto an SMF type disk.
SONG FILE NOT FOUND	The current function cannot be performed because this disk contains no songs or only one song.
WRONG DESTINATION DISK	A wrong floppy disk has been inserted as the destination disk. Insert the correct floppy disk.
UNFORMATTED DISK	The floppy disk is either new and has not yet been formatted for use with the DSR1 or it uses a format not recognized by the DSR1. Format the floppy disk. See "Formatting Disks" on page 2 in the *Advanced Operation Manual*.
UNSUITABLE DISK FORMAT	The destination disk must be the same format as the floppy disk to be copied.

SELECT REC TRACK!	You must select the track you want to record before starting recording.
ONLY E-SEQ FILES CAN BE COPIED	Only E-SEQ files can be recorded onto an E-SEQ type disk.
ERROR HAS OCCURRED! (PRESS STOP KEY!)	The floppy disk may be damaged. Press the Stop key to clear the message. If this message appears frequently with other disks as well, contact your nearest Yamaha service representative.

English

Chapter 13
Glossary

This glossary provides basic definitions of terms used frequently in the DSR1 manuals.

Auto Start
: A DSR1 function that automatically starts song playback when the power is switched on.

bpm
: An abbreviation for beats per minute.

Clavinova™
: A series of Yamaha digital pianos.

Continuous Pedal
: Same as "Incremental Pedal".

Cursor
: The " ▶ " symbol that is used on the LCD to show the currently selected function or option. When entering song or disk titles, the cursor will be the "_" symbol. Do not confuse this with the [◀] [▶] cursor buttons.

Dial
: The rotary control on the front panel used to adjust the volume, set parameters and options.

Disk
: Storage media for data. For clarity in the DSR1 manuals, "disk" is used as a generic term to refer to both the floppy disk and internal Memory Disk. All DSR1 playback, recording, and disk utility functions can be used for both the internal Memory Disk and floppy disks.

Ensemble Song
: A song which contains piano parts and accompanying instrumental voices.
An Ensemble song contains the same left and right-hand parts as an L/R song, and in addition, up to 13 accompanying instrument tracks. These extra tracks are played by the internal XG tone generator. The accompanying tracks may be used for acoustic bass, drums, strings, vibes, etc.

E-SEQ Song Format
: A song file format developed by Yamaha for saving songs onto floppy disk.

E-SEQ Type Disk
: One of two disk types that the DSR1 uses to format disks. E-SEQ type disks are compatible with early Disklavier models.

Fast Forward & Reverse
: Two DSR1 functions that allow you to quickly locate a position within a song. This is faster than preview and review, but the piano does not play.

Fast Preview & Review
: Two DSR1 functions that allow you to search quickly through a song with your piano playing.

Floppy Disk
: The magnetic storage medium that the DSR1 uses to save songs. The DSR1 uses the 3.5 inch 2DD and 2HD floppy disks commonly used for computers.

Formatting
: New floppy disks must be formatted before they can be used with the DSR1. Formatting prepares the disk so that it is ready to store DSR1 song data.

General MIDI (GM)
: An addition to the MIDI standard that simplifies the transfer of MIDI song files between different manufacturers' instruments. A MIDI song recorded using a GM compatible tone generator should play back correctly when used with any GM compatible tone generator. The standard specifies that a GM compatible tone generator must support 24-note polyphony, 16 parts, and 128 standard voices.

Half Pedal
: Same as "Incremental Pedal".

Import File
: Songs recorded onto floppy disks using MIDI equipment other than the DSR1 and played back by the DSR1.

Incremental Pedal
: Piano pedals are not always fully up or down; they may be held somewhere in-between. The DSR1 can record and play back pedal movements of the left and right pedals, and this is called incremental or continuous pedal data (half data).

KBD OUT
: A setting for sending keyboard data to a MIDI instrument.
If the DSR1 is connected to a Disklavier piano, the piano must be set to KBD OUT in order to send keyboard data to the DSR1 and record songs or use the Voice function. (See your piano's owner's manual for details.)

LCD
: Liquid Crystal Display. The front panel has a 2-line, 24-character LCD. For clarity in the DSR1 manuals, the LCD is referred to as the "display".

LED
: Light Emitting Diode. The front panel's indicators are LEDs.

L/R Song
: In a L/R song, the left-hand piano part is stored on track 1 (L) and the right-hand piano part is stored on track 2 (R). During playback you can cancel either part, and then play that part yourself. When recording an L/R song, you can record the two parts simultaneously or separately.

Memory Disk
: The DSR1 has an internal Memory Disk that allows you to store song data without a floppy disk. It has a memory capacity of 1MB.

Metronome
: A built-in device designed to mark exact time by a regularly repeated click and flashing of LED, and used for both recording and playback.

MIDI
: An acronym for Musical Instrument Digital Interface. MIDI allows electronic musical instruments to communicate with each other.

Overdub
: To add to an existing recording. For example, the DSR1's rhythm track can be overdubbed. First record a bass drum, then a snare, then some hi-hats, etc.

Piano Parts
: Refers to the left- and right-hand piano parts of a song. The left-hand piano part is recorded onto track 1 and the right-hand piano part is recorded onto track 2 (default). This track assignment can be changed.

PianoSoft™ : The PianoSoft Disk Collection is a library of prerecorded song disks made by Yamaha, specifically for use with the Disklavier and DSR1.

PianoSoft·Plus™ : PianoSoft·Plus disks contain Ensemble songs that can be played on the Disklavier and DSR1.

Polyphony : Ability of a musical instrument to play more than one note at a time. The DSR1 has 16-note polyphony. (The internal XG tone generator is capable of 32-note polyphony.)

Program Change Message : A type of MIDI message that is used for selecting programs or voices. When an Ensemble song starts playing, Program Change messages are sent to the tone generator to select the correct instrument voices for each ensemble track.

Quantize : A DSR1 function that can be used when recording. With the quantize function on, the timing of notes played using the keyboard will automatically be corrected to the specified quantize value.

Rhythm Track : Tracks of an ensemble song designated for the accompanying rhythm. The rhythm track is unaffected by the playback transposition function.

Search : A DSR1 function that allows you to start playback from a specific point within a song. This function is set using the remote control.

Sequencer : A sequencer can be used with the DSR1 to play back and record MIDI data.

SMF : Abbreviation for Standard MIDI File.

SMF Song Format : A song file format supported by MIDI sequencers and music software.

SMF Type Disk : One of two disk types that the DSR1 uses to format disks. SMF type disks automatically record songs using SMF format 0.

Song : Normally, a short piece of music with lyrics. However, for clarity in the DSR1 manuals, the term is used to refer to any piece of music, be it jazz, classical, or popular.

Song Format : The method used to store song data in a file. PianoSoft and PianoSoft·Plus songs use the E-SEQ format. The DSR1 also supports songs in the Standard MIDI File (SMF) format.

Song Number : All songs on a DSR1 song disk are numbered sequentially. The currently selected song number is shown in the front panel's Song Number Indicator. Songs can be selected directly by entering the song number using the remote control's number pad.

Song Sort : A DSR1 function that allows you to rearrange the order of songs on a disk.

Space Playback : A DSR1 function that allows you to specify a pause time between songs during playback.

Split Point : When a keyboard split point is set before recording, notes played on the left-hand side of the split point are saved as the left-hand part and notes played on the right-hand side of the split point are saved as the right-hand part. This allows you to play the left- and right-hand parts simultaneously, but on different tracks.

Standard MIDI File (SMF) : A file of MIDI data that can be read and used by a number of different MIDI devices and computers. The DSR1 supports all SMF playback functions.

System Exclusive Messages : A type of MIDI messages that is used for sending system data to a connected MIDI device. For example, when tuning the internal XG tone generator or an external tone generator, System Exclusive Messages are sent via MIDI.

TG Master Balance : A function that allows you to balance the volume levels of your piano and the internal XG tone generator.

TG Master Tune : The function that allows you to tune the internal XG tone generator, and if connected, an external tone generator simultaneously so that their tunings match that of your piano.

Tone Generator : An electronic device that can generate tones or instrument voices.

Track : DSR1 ensemble song data is organized as tracks. One song can be composed of up to 16 tracks.

Transpose : Changing the key of a song. For example, a song in the key of C can be transposed to the key of D by transposing it up two semitones.

Velocity : Because the loudness of a piano note is determined by the speed (velocity) with which a string is struck by a hammer, note loudness is referred to as velocity.

Voice : The sounds produced by a tone generator expressing various instruments. See the "Internal XG Tone Generator Basic Voice List" on pages 60 and 61 of the *Getting Started & Playback Manual* for a listing of capital voices, and the Appendix "MIDI Data Format" at the very end of this manual for a full listing of available voices.

XG : Yamaha XG is an extension of the GM (General MIDI) format. It has greater polyphony, more voices, and incorporates effects, enhancing the compatibility between MIDI devices. When a song in the Yamaha XG format is played on another XG-compatible tone generator or synthesizer, it plays and sounds as the original composer/creator intended.

Chapter 14
DSR1 Specifications

Operational Panel (Front & Rear)	Main Display	24-character × 2-line LCD
	Song # Indicator	7-segment, 2-digit LED
	Function Indicators	LEDs
	Switches	Power, Host Select (MIDI, PC1, PC2, Mac)
	Connectors	MIDI (In, Out), AUX IN w/volume, Output (Line/Phones) w/volume, To Host (serial port), Piano (In, Out), DC IN
XG Tone Generator	Type	Advanced Wave Memory 2 (AWM2)
	Polyphony	32-note max.
	Ensemble Parts	16
	Voice Module Modes	XG, GM
	Normal Voices	676 (total); 480 (selectable)
	Drum Voices	21 kits (total); 11 (selectable)
	Pitch	Set at A=440, tunable ±50 cents in 1 cent steps
Data Storage	Media	3.5" 2DD (720KB) or 2HD (1.44MB) floppy disk
	Memory Disk	1MB Flash memory
	File Format	E-SEQ/Standard MIDI File (format 0, format 1)
Playback Functions	Volume	11 levels (0 ~ −10)
	Tempo	−50% ~ +20% in 1% steps
	Transposition	±24 semitones (2 octaves) in 1-semitone steps
	Balance	Balancing volume of ensemble voices and piano
	Repeat*	Disk, song, random, segment A~B, segment A~
	Song Select	Rev/fwd, song by song; numerical selection
	Music Search	Rev/fwd, w/ or w/o sound; direct by time or measure
	Others	L/R part select, auto start, space playback, pedal cancel, pedal count-in
Recording Functions	Tracks	16 (including 2 for piano)
	L/R Dual Recording	Separate L/R or assignable split point
	Quantize	1/4, 1/6, 1/8, 1/12, 1/16 of a quarter note
	Others	Re-recording
Metronome	Range	30 ~ 400 beats per minute
	Time Signatures	1/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 8/4, 9/4
	Functions	Audible (tick on/off, volume controllable), visual (LEDs)
Editing Function	Track	Mix, move, copy, delete, transpose
Utility Functions	Song	Copy, sort, delete, type convert (SMF, E-SEQ, earlier Disklavier), time format convert
	Disk	Format, copy, type convert
	Title Entry	Disk: 64 characters max. Song: 32 characters max.
Power Source		12V DC, supplied from AC adaptor
Dimensions	W × H × D	316 × 60 × 209 mm (12$^1/_2$" × 2$^1/_2$" × 8$^1/_4$")
Weight		2.0 kg (4.4 lbs.)
Supplied Accessories		Wireless remote control unit w/batteries, AC adaptor, Audio cables (3), MIDI cables (2), PianoSoft sample disk, Blank 3.5" 2DD floppy disk, Owner's manuals

* Remote control only.

Specifications are subject to change without notice.